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[54] **METHOD AND ARTIFICIAL INTRAOCULAR LENS DEVICE FOR THE PHAKIC TREATMENT OF MYOPIA**

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Related U.S. Application Data

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[52] **U.S. Cl.** ..... **623/6;** 128/303 R

[58] **Field of Search** ..... 623/6; 128/303 R

[56] **References Cited**

U.S. PATENT DOCUMENTS

4,435,855	3/1984	Pannu	623/6
4,437,194	3/1984	Hahs	623/6
4,542,540	9/1985	White	623/6
4,581,033	4/1986	Callahan	623/6
4,600,003	7/1986	Lopez	623/6 X
4,619,256	10/1986	Horn	623/6 X

FOREIGN PATENT DOCUMENTS

7908210	6/1981	Netherlands	623/6
2165456A	4/1986	United Kingdom	623/6

OTHER PUBLICATIONS

"An Intraocular Lens Carrier" by O. I. Lopez et al., Am Intra-Ocular Implant Soc. Journal, vol. 9, No. 4, Fall 1983, pp. 477–479.

"The Lens, The Copeland Radial Anterior Chamber Lens–UV", Donald L. Praeger, Brochure by Copeland Intra Lenses, Inc., (7 pages) 1982.

"An Ocular Telephoto System Designed to Improve Vision in Macular Disease", Anthony Donn et al., *CLAO Journal,* V. 12, No. 2, pp. 81–85, (Apr., 1986).

"Optical Problems Following Refractive Surgery", Perry S. Binder, *Ophthalmology* 93:739–745 (1986).

"Intraocular Lens Data", Robert L. Stamper et al., Dept. of Ophthalmology, Pacific Medical Center, San Francisco (1984); pp. 164–180.

"Intra-Ocular Lenses and Implants", Peter Choyce, pp. 11–15, Chapters 6, 20 and 21 (H. K. Lewis & Co. Ltd. 1964).

"Incidence, Accidents, et. Complications Possibles au Cours de l'Inclusion de Lentilles Plastiques dans la Chanbre Anterieure–Experience Personnelle Basee sur les 132 Premiers Cas", Bull. la Societe Francais D'Ophtalmologie 1957, vol. 70, 233–251.

(List continued on next page.)

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[57] **ABSTRACT**

The placing of an artificial intraocular lens device (IOL) in the anterior chamber of the eye (in front of the iris) for treating myopia. The intraocular lens device includes a meniscus style lens which has a plano anterior surface and a concave posterior surface. The edges of the lens are rounded off and the peripheral portion of the lens is considerably thicker than the central portion of the lens. The lens is a minus (negative) refracting lens. The lens is suspended in the anterior chamber by three or four carrying angles or haptics having solid footplates at their ends for anchoring the device in the anatomic angle of the eye. The solid footplates are sized to prevent tissue overgrowth and resulting synechia after placement, additionally facilitating subsequent removal of the lens device from the anterior chamber if necessary. A ridges lens glide is also provided to facilitate insertion of the lens device into the anterior chamber during implantation. This lens device is utilized in the phakic state (the state of the natural lens being retained). With the patient's natural crystalline lens being retained, the natural crystalline lens is located in the posterior chamber behind the iris and the artificial intraocular lens of negative power is located in the anterior chamber in front of the iris. The presence of the phakic state allows for accommodation to occur. The intended age range for applicability of the device is approximately from age 20–50.

32 Claims, 13 Drawing Figures